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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,128	01/14/2004	Eric J. Glover	03009	3825

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EXAMINER	
PONIKIEWSKI, TOMASZ	

ART UNIT	PAPER NUMBER
2165	

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/757,128	GLOVER ET AL.	
	Examiner	Art Unit	
	Tomasz Ponikiewski	2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 October 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☒ Claim(s) *12, 19, 30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-30 are pending.

2. Applicant's reply to Office Action received October 3, 2006 is acknowledged.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 presents an "expansion query" concept that is not sufficiently described in the claim and the specification. It's not clear how the expansion is made in light of the stated claim language.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1-11, 13-18 and 20-29 are rejected under 35 U.S.C. 102(e) as being anticipated by Simske et al. (US 2004/0064447 A1).

As per claim 1 Simske et al. is directed to a computer-implemented method to search for data responsive to first and second query concepts, comprising:

receiving a first set of expanded results generated from one or more results of a first query concept by utilizing one or more data sources (paragraph 0066);

receiving a second set of expanded results generated from one or more results a second query concept by utilizing the one or more data sources (paragraph 0066);

determining an intersection set of documents from the first and second sets of expanded results, wherein a relationship is determined between the first and second query concepts from the intersecting set of documents (paragraph 0080, lines 14-21, wherein the intersection would be indicated by the top weighted items, and therefore showing relationship of similarity); and

displaying one of: the relationship, the responsive data (paragraph 0080, lines 25-27) .

As per claim 2 Simske et al. is directed to the relationship between the first and second query concepts is determined for each document those concepts related to the

document from a larger concept set, the larger concept set including expansions of the first query concept and the second query concept (paragraph 0080, lines 14-21).

As per claim 3 Simske et al. is directed to a first relevance score is assigned to the first set of expanded results and a second relevance score is assigned to the second set of expanded results and wherein a composite relevance score is assigned to the intersection set of documents (paragraph 0080, lines 18-21).

As per claim 4 Simske et al. is directed to a composite score is assigned by multiplying the first and second relevance scores (paragraph 0105, lines 7-10).

As per claim 5 Simske et al. is directed to the documents are filtered by a relevance score (paragraph 0145, lines 4-10, wherein not relevant words are filtered).

As per claim 6 Simske et al. is directed to the expanded results are generated by:

defining a first set of documents relevant to the query concept, the first set of documents being a subset of a collection set of documents (paragraph 0078);

building a first histogram of features from the first set of documents (paragraph 0078, wherein the histogram could be interpreted as most optimal synonymic queries);

and selecting features for an expanded feature set by comparing the first histogram of features with a second histogram of features from the collection set of documents (paragraph 0078).

As per claim 7 Simske et al. is directed to the features in the second histogram are a baseline expansion feature set and the features for the expanded feature set are selected by removing features from the baseline expansion feature set based on how often the features appear in the first histogram (paragraph 0078).

As per claim 9 Simske et al. is directed to the expanded feature set is ranked by expected entropy loss (paragraph 0078).

As per claim 10 Simske et al. is directed to concept constraints are applied to the expanded feature set (paragraph 0078).

As per claim 11 Simske et al. is directed to a feedback scoring function is applied to results generated from the expanded feature set (paragraph 0080, lines 8-14).

As per claim 13 Simske et al. is directed to a computer-implemented method for automatic query expansion comprising:

defining a first set of documents relevant to the query concept, the first set of documents being a subset of a collection set of documents (paragraph 0078);

building a first histogram of features from the first set of documents (paragraph 0078);

selecting features for an expanded feature set by comparing the first histogram of features with a second histogram of features from the collection set of documents (paragraph 0078); and

displaying the query expression (page 9, paragraph 0078, lines 3-6, wherein user sees the query expansion)

As per claim 14 Simske et al. is directed to the features in the second histogram are a baseline expansion feature set and the features for the expanded feature set are selected by removing features from the baseline expansion feature set based on how often the features appear in the first histogram (paragraph 0078).

As per claim 16 Simske et al. is directed to the expanded feature set is ranked by expected entropy loss (paragraph 0078).

As per claim 17, Simske et al. is directed to concept constraints are applied to the expanded feature set (paragraph 0078).

As per claim 18 Simske et al. is directed to a feedback scoring function is applied to results generated from the expanded feature set (paragraph 0080, lines 8-14).

As per claim 20 Simske et al. is directed to a computer-readable medium storing instructions to search for data responsive to first and second query concepts, the medium comprising instructions to perform:

receiving a first set of expanded results generated from one or more results of a first query concept by utilizing one or more data sources (paragraph 0066);

receiving a second set of expanded results generated from one or more results of a second query concept by utilizing the one or more data sources (paragraph 0066);

determining an intersection set of documents from the first and second sets of expanded results, wherein a relationship can be determined between the first and second query concepts from the intersecting set of documents (paragraph 0080, lines 14-21, wherein the intersection would be indicated by the top weighted items, and therefore showing relationship of similarity); and

displaying one of: the relationship, the responsive data (paragraph 0080, lines 25-27) .

As per claim 21 Simske et al. is directed to the relationship between the first and second query concepts is determined for each document those concepts related to the document from a larger concept set, the larger concept set including expansions of the first query concept and the second query concept (paragraph 0080, lines 14-21).

As per claim 22 Simske et al. is directed to a first relevance score is assigned to the first set of expanded results and a second relevance score is assigned to the

second set of expanded results and wherein a composite relevance score is assigned to the intersection set of documents (paragraph 0080, lines 18-21).

As per claim 23, Simske et al. is directed to the expanded results are generated by:

defining a first set of documents relevant to the query concept, the first set of documents being a subset of a collection set of documents (paragraph 0078);

building a first histogram of features from the first set of documents (paragraph 0078, wherein the histogram could be interpreted as most optimal synonymic queries); and selecting features for an expanded feature set by comparing the first histogram of features with a second histogram of features from the collection set of documents (v).

As per claim 24 Simske et al. is directed to a computer-readable medium storing instructions for automatic query expansion, the medium comprising instructions to perform:

defining a first set of documents relevant to a first query concept, the first set of documents being a subset of a collection set of documents (paragraph 0078);

building a first histogram of features from the first set of documents (paragraph 0078);

selecting features for an expanded feature set by comparing the first histogram of features with a second histogram of features from the collection set of documents (paragraph 0078); and

displaying the query expression (page 9, paragraph 0078, lines 3-6, wherein user sees the query expansion)

As per claim 25 Simske et al. is directed to the features in the second histogram are a baseline expansion feature set and the features for the expanded feature set are selected by removing features from the baseline expansion feature set based on how often the features appear in the first histogram (paragraph 0078).

As per claim 27 Simske et al. directed to the expanded feature set is ranked by expected entropy loss (paragraph 0078).

As per claim 28 Simske et al. is directed to concept constraints are applied to the expanded feature set (paragraph 0078).

As per claim 29 Simske et al. is directed to a feedback scoring function is applied to results generated from the expanded feature set (paragraph 0080, lines 8-14).

Allowable Subject Matter

7. Claims 12, 19 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments, filed 10/03/2006, with respect to the rejection(s) of claim(s) 1-30 under Syeda-Mahmood (US 6,578,040 B1) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Simske et al.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tomasz Ponikiewski whose telephone number is (571)272-1721. The examiner can normally be reached on 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on (571)272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tomasz Ponikiewski
December 11, 2006

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